Inspiring Innovation • Persistent Perfection

M5A78L-M LX V2
DDR3 1866(O.C.) Motherboard with EPU power optimization on AM3+ Platform

- EPU - System Level Energy Saving!
- Turbo Key - Touch-n-Boost!
- Anti-surge - Protect Your Device!
- Core Unlocker - Unleash True Core Performance Intelligently!

AMD® FX™ /Phenom™II /Athlon™II /Sempron™ 100 Series Processors (Socket AM3+)

This motherboard supports AMD® AM3+ multi-core processors with unique L3 cache and delivers better overclocking capabilities with less power consumption. It features dual-channel DDR3 memory support and accelerates data transfer rate up to 5200MT/s via HyperTransport™ 3.0 based system bus. This motherboard also supports AMD® CPUs in the new 32nm manufacturing process.

EPU-4 Engine

System Level Energy Saving

The new ASUS EPU - the world's first power saving engine, has been upgraded to a new 4-engine version, which provides total system power savings by detecting current PC loadings and intelligently moderating power in real-time. The EPU automatically provides the most appropriate power usage for the CPU, VGA card, hard drives and CPU cooler fan - helping save power and money.

Core Unlocker

Unleash True Core Performance Intelligently

ASUS Core Unlocker simplifies the activation of a latent AMD® CPU—with just a simply key. Enjoy an instant performance boost by simply unlocking the extra cores, without performing complicated BIOS changes.

Turbo Key

ASUS Turbo Key allows the user to turn the PC power button into a physical overclocking button. After the easy setup, Turbo Key can boost performances without interrupting ongoing work or games - with just one touch!!

ESD

Protect Your Computer with ESD Guards. Electrostatic discharge (ESD) conditions can happen while plugging or unplugging any USB peripherals-causing damage to the computer. ASUS ESD Guards clamp the ESD voltage and shunt the majority of the ESD current away for a more reliable computing environment.

ASUS Anti-Surge Protection

Anti-Surge Protection Design detects overvoltage conditions and prevents voltage surges from spreading in real time. It also actively cuts off the overvoltage supply to protect the system.

1. Real-time over voltage detection.
2. Active protection against potential damage to your motherboards and systems.

8-channel high definition audio

Enjoy high-end sound system on your PC! The onboard 8-channel HD audio (High Definition Audio, previously codenamed Azalia) CODEC enables high-quality 192KHz/24-bit audio output, jack-sensing feature, retasking functions and multi-streaming technology that simultaneously sends different audio streams to different destinations. You can now talk to your partners on the headphone while playing a multi-channel network games. All of these are done on one computer.

** Use the chassis with HD audio module in the front panel to support 8-channel audio output.

C.P.R.(CPU Parameter Recall)

The BIOS C.P.R. feature automatically restores the CPU default settings when the system hangs due to overclocking failure. C.P.R. eliminates the need to open the system chassis and clear the RTC data. Simply shut down and reboot the system, and the BIOS automatically restores the CPU parameters to their default settings.

EZ-Flash 2

Simply update BIOS from a USB flash disk before entering the OS

EZ Flash 2 is a user-friendly BIOS update utility. Simply launch this tool and update BIOS from a USB flash disk before entering the OS. You can update your BIOS only in a few clicks without preparing an additional floppy diskette or using an OS-based flash utility.

ErP ready

The motherboard is European Union´s Energy-related Products (ErP) ready, and ErP requires products to meet certain energy efficiency requirements in regards to energy consumptions. This is in line with ASUS vision of creating environment-friendly and energy-efficient products through product design and innovation to reduce carbon footprint of the product and thus mitigate environmental impacts.

Specifications

CPU	AMD AM3+ FX™/Phenom™ II/Athlon™ II/Sempron™ 100 Series Processors Supports CPU up to 125 W AMD Cool 'n' Quiet™ Technology
Chipset	AMD 760G (780L)/SB710
Memory	2 x DIMM, Max. 8GB, DDR3 1866(O.C.)/1600(O.C.)/1333/1066 MHz ECC, Non-ECC, Un-buffered Memory Dual Channel Memory Architecture * Refer to www.asus.com or user manual for the Memory QVL (Qualified Vendors Lists). * Due to OS limitation, when installing total memory of 4GB capacity or more, Windows® 32-bit operation system may only recognize less than 3GB. Install a 64-bit Windows® OS when you want to install 4GB or more memory on the motherboard. * AMD FX Series CPU on this motherboard supports up to DDR3 1866MHz as its standard memory frequency. * AMD AM3 100 and 200 series CPU support up to DDR3 1066MHz.
System Bus	Up to 5.2 GT/s HyperTransport™ 3.0
Graphic	Integrated ATI Radeon™ HD 3000 GPU VGA output support : RGB port - Supports RGB with max. resolution 2560 x 1440 @ 75 Hz Maximum shared memory of 1024 MB Hybrid CrossFireX™ Support *1 Supports DirectX 10
Expansion Slots	1 x PCIe 2.0 x16 2 x PCIe 2.0 x1 1 x PCI
Storage	**AMD SB710 controller :** 6 x SATA 3Gb/s port(s), blue Support Raid 0, 1, 10, JBOD
LAN	Realtek® 8111E , 1 x Gigabit LAN Controller(s)
Audio	Realtek® ALC887 8-Channel High Definition Audio CODEC *2
USB Ports	**AMD SB710 controller :** 10 x USB 2.0 port(s) (4 at back panel, black, 6 at mid-board)
Overclocking Features	**Overclocking Protection :** - ASUS C.P.R.(CPU Parameter Recall)
Special Features	**ASUS Power Design :** - ASUS EPU-4 Engine **Turbo Key** **Core Unlocker** **ASUS Exclusive Features** : - Ai Charger - Anti-Surge **ASUS Quiet Thermal Solution** : - ASUS Q-Fan **ASUS EZ DIY :** - ASUS EZ Flash 2 - ASUS MyLogo 2
Back I/O Ports	1 x PS/2 keyboard (purple) 1 x PS/2 mouse (green) 1 x D-Sub 1 x LAN (RJ45) port(s) 4 x USB 2.0 1 x COM port(s) 1 x Parallel port(s) 3 x Audio jack(s)
Internal I/O Ports	3 x USB 2.0 connector(s) support(s) additional 6 USB 2.0 port(s) 6 x SATA 3Gb/s connector(s) 1 x CPU Fan connector(s) 1 x Chassis Fan connector(s) 1 x S/PDIF out header(s) 1 x 24-pin EATX Power connector(s) 1 x 4-pin ATX 12V Power connector(s) 1 x Front panel audio connector(s) (AAFP)

Accessories	1 x Internal speaker connector(s) 1 x System panel(s)
	User's manual I/O Shield 2 x SATA 3Gb/s cable(s)
BIOS	16 Mb Flash ROM, AMI BIOS, PnP, DMI v2.0, WfM2.0, SM BIOS V2.5, ACPI V2.0a
Support Disc	Drivers ASUS PC Probe II ASUS Update Anti-virus software (OEM version)
Form Factor	uATX Form Factor 9.6 inch x 8 inch (24.4 cm x 20.3 cm)
Note	*1: Refer to www.amd.com for the Hybrid CrossFireX selected GPUs. *2: Use a chassis with HD audio module in the front panel to support an 8-channel audio output.